UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
9311 GROH ROAD
GROSSE ILE, MI 48138

MEMORANDUM

SUBJECT: Round three vapor intrusion investigation data review for the Reilly Tar and Chemical Site

FROM: Keith Fusinski, PhD Toxicologist US EPA
Superfund Division, Remedial Response Branch #1, Remedial Response Section #1

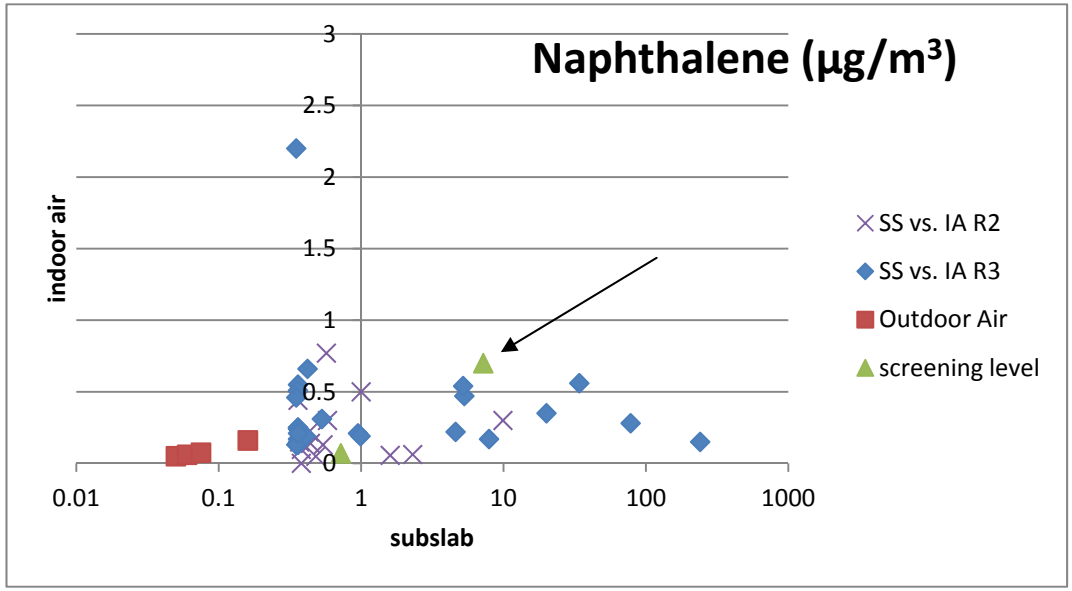
TO Michelle Kerr, Remedial Project Manager, US EPA
Superfund Division, Remedial Response Branch #2, Remedial Response Section #6

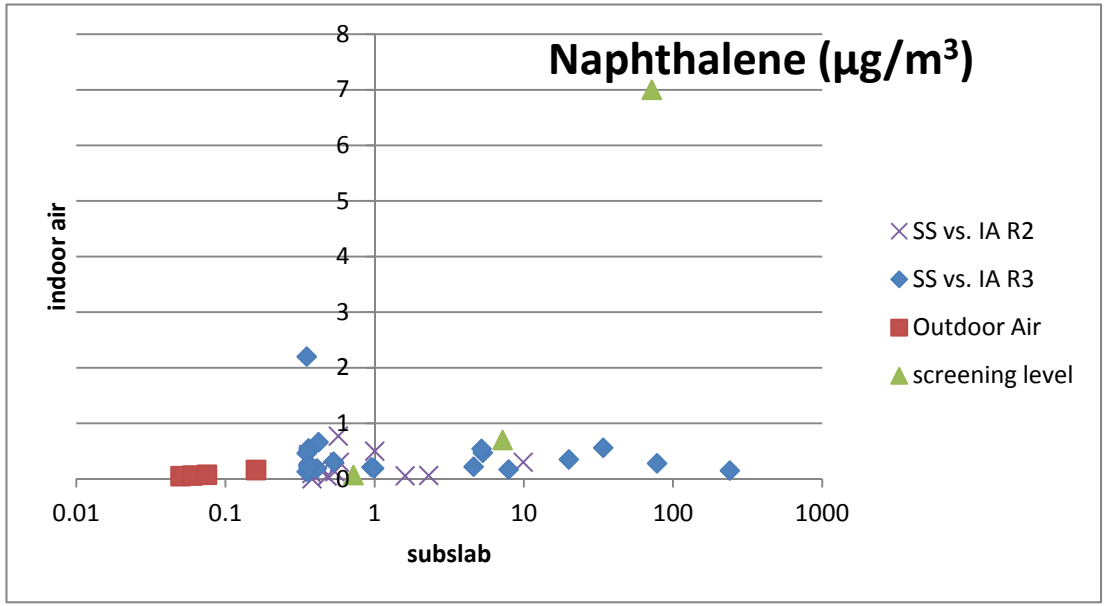
DATE: 8/22/2013

Upon review of the three rounds of subslab and two rounds of indoor air data collected at the Reilly Tar and Chemical Site, it has been determined the risk from vapor intrusion is within or below US EPA's acceptable risk range. Most data points show a risk of below $1x10^{-5}$ excess lifetime cancer risk (ELCR) or below a hazard index of 1. There are two sampling locations which have subslab concentrations of naphthalene above the $1x10^{-5}$ risk range and greater than ten times the indoor air levels. Indoor air concentrations at these two locations are below the $1x10^{-5}$ ELCR.

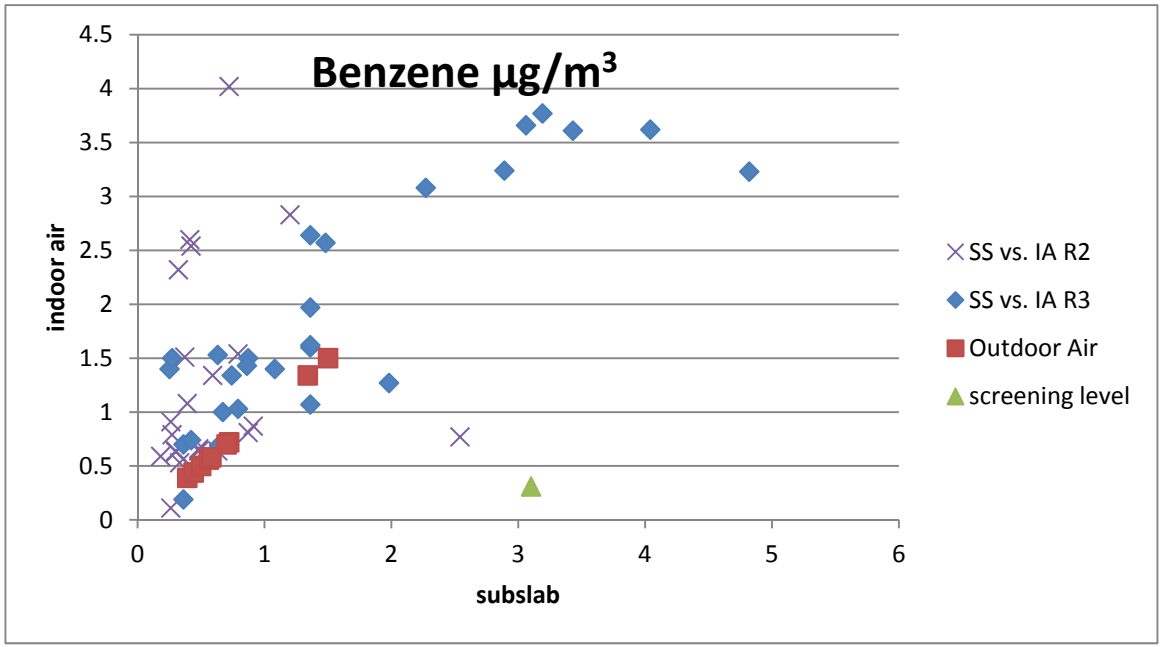
The contamination at the site has been in place for over 60 years and there are no plans for further development at the site. Therefore, it is reasonable to believe that the concentrations of volatile organic compounds (VOCs) and polyaromatic hydrocarbons (PAHs) will either remain constant or decrease over time. It has been determined after review of the data, that there is a complete vapor intrusion pathway at the site. However, the risks from exposure to indoor air of the buildings at the site are below or within the US EPA acceptable risk range.

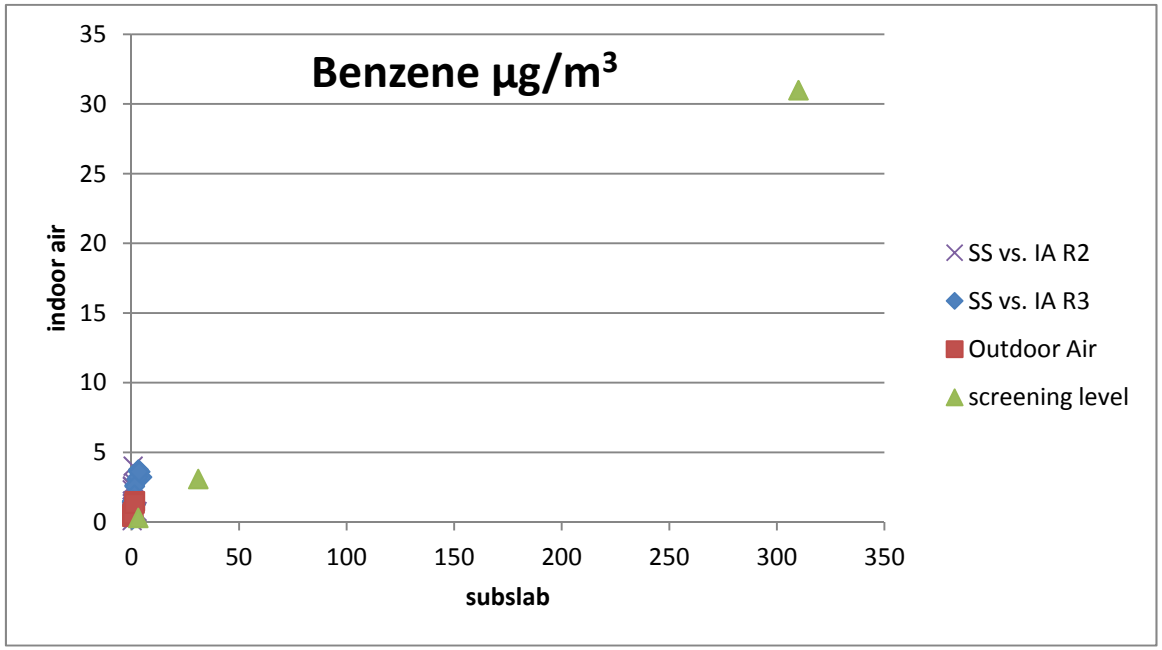
Based on the results of our investigation, it does not appear that an unacceptable risk exists from the vapor intrusion pathway at the Reilly Tar Site. Therefore, it is deemed appropriate to seal and vacate the sample probes at the Site.





Overall results for naphthalene are below or within the acceptable risk range recommended by EPA. The vapor intrusion pathway is complete for naphthalene, but concentrations in indoor air are mostly below the 1 in 100,000 (10^{-5}) excess lifetime cancer risk level or below a hazard index of 1.





Benzene does not present a pattern consistent with vapor intrusion.

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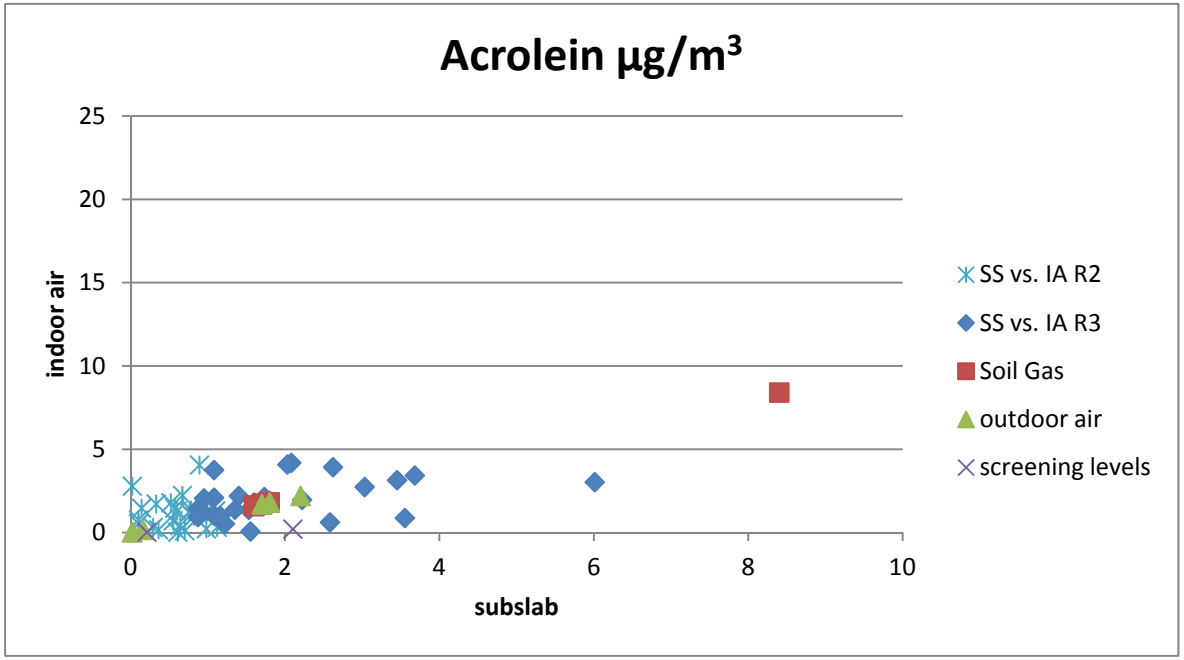

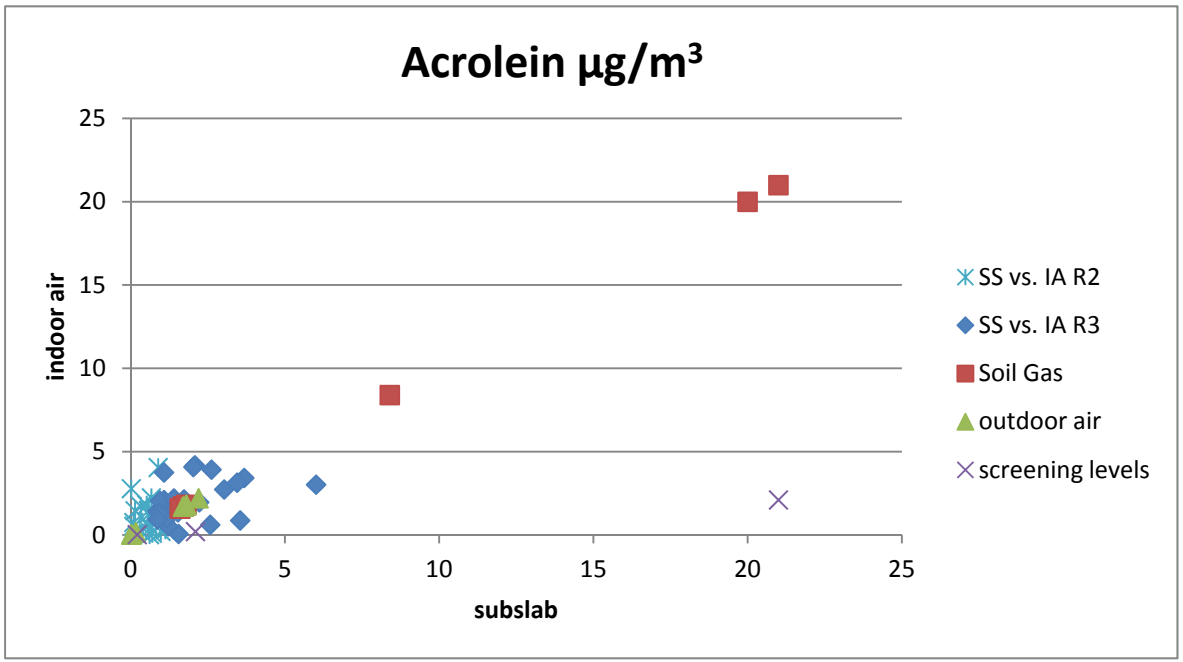

Acrolein is not a site-specific contaminant. Concentrations of acrolein in indoor air were similar to concentrations measured in outdoor air and are not a concern.

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Site Location

Superfund
U.S. Environmental Protection Agency

Reilly Tar and Chemical Corp.
Hennepin County, MN

MND980609804

State

County

Site

Created by Sarah Backhouse
U.S. EPA Region 5 on 9/22/06
Image Date: 2003

Legend

Reilly Tar and Chemical Corp.

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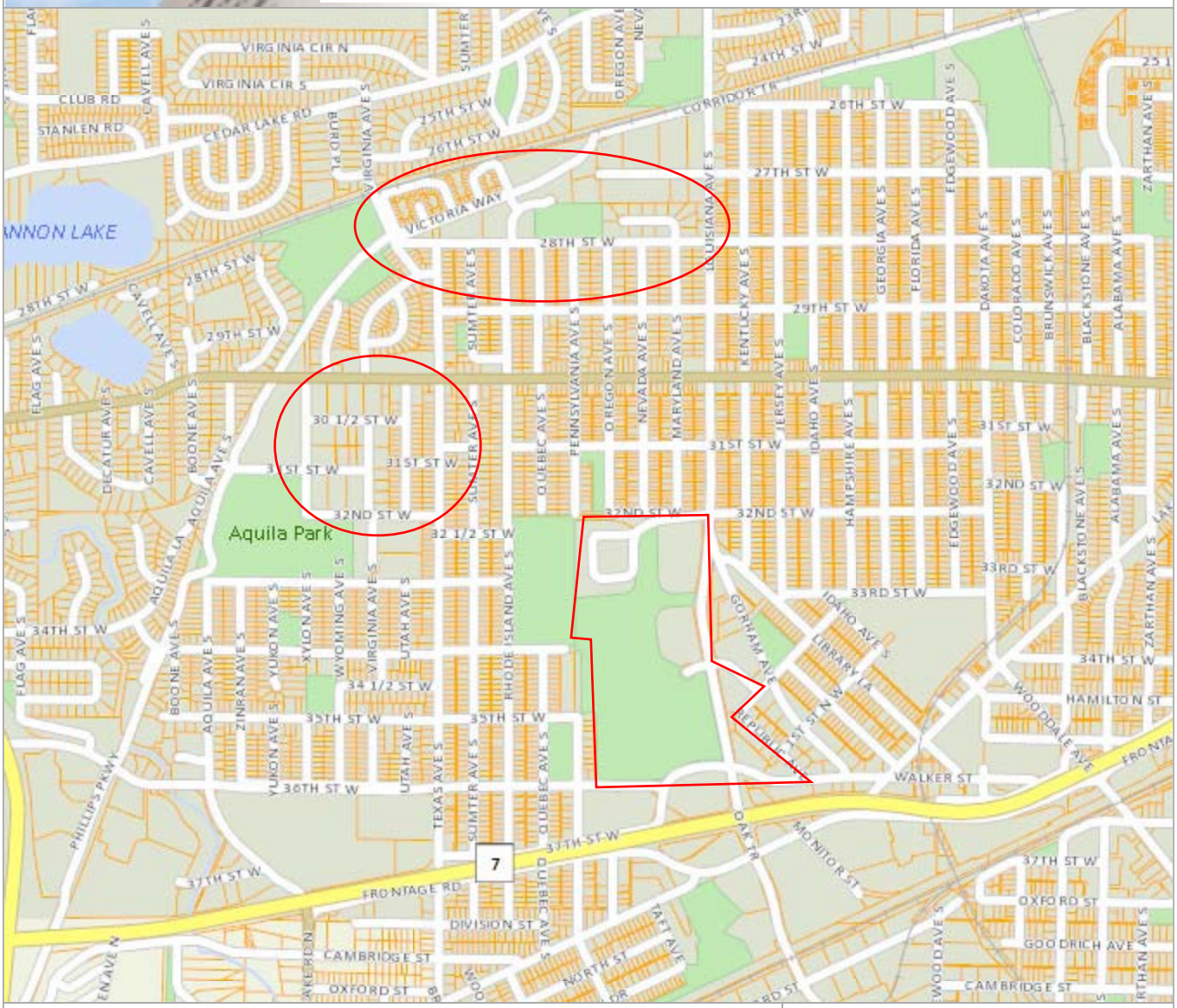
GEOS
Groundwater Evaluation and Optimization System

Hennepin Interactive Maps

Approximate Background Soil Gas Sample Locations
Reilly Tar & Chemical Corp. Superfund Site
Vapor Intrusion Investigation 9/2013

Property Map



NOTES:

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Map Scale: 1" ≈ 1600 ft.

Print Date: 9/4/2013

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This map is a compilation of data from various sources and is furnished "AS IS" with no representation or warranty expressed or implied, including fitness of any particular purpose, merchantability, or the accuracy and completeness of the information shown.

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